

IN THE CLAIMS

1. (Currently Amended) A method comprising:  
receiving data from a number of interfaces via one or more first protocols;  
switching the data through a first switch fabric upon determining that the data is being processed as packet data to be transmitted via one or more second protocols,  
wherein switching the data through the first switch fabric includes:  
de-encapsulating a first number of protocol headers associated with the  
first protocols from the packet data; and  
encapsulating the packet data with a second number of protocol headers  
associated with the second protocols;  
switching the data through a second switch fabric different than the first switching  
fabric upon determining that the data is being processed as Time Division  
Multiplexing (TDM) traffic; and  
concatenating the packet data into a TDM signal, wherein the concatenation can be  
across any locations within the TDM signal and wherein a size of the  
concatenation can be in increments of single TDM frames.
2. (Original) The method of claim 1, wherein switching the data through the first switch  
fabric further comprises mapping TDM traffic into packet data.
3. (Canceled)
4. (Previously Presented) A method comprising:

receiving data from a first Time Division Multiplexing (TDM) signal through a number of first interfaces;

switching the data through a packet mesh upon determining that the data is being processed as packets to be transmitted via one or more second protocols other than a TDM signal, wherein switching the data through the packet mesh includes:

de-encapsulating a first number of protocol headers associated with the TDM signal from the packets; and

encapsulating the packets with a second number of protocol headers associated with the second protocols;

switching the data through a TDM switch fabric different than the packet mesh upon determining that the data is being processed as Time Division Multiplexing (TDM) traffic; and

transmitting the packets and the TDM traffic into a second TDM signal through a number of second interfaces, wherein the transmitting includes concatenating the packets into the second TDM signal such that the concatenation can be across any location within the second TDM signal and wherein a size of the concatenation can be in increments of single TDM frames.

5. (Original) The method of claim 4, wherein the second TDM signal is transmitted to an in-ring network element.

6. (Original) The method of claim 4, wherein the packets are concatenated within locations in the second TDM signal not occupied by TDM traffic.

7. – 11. (Canceled)

12. (Previously Presented) A network element comprising:

a first line card having a number of first interfaces to receive data;

a second line card having a number of second interfaces;

a first switch fabric coupling the first line card to the second line card;

a control card;

a second switch fabric coupling the control card to the first line card and the second line card,

wherein the first line card is to switch the data through the first switch fabric upon determining that the data is being processed as packets, wherein the first line card is to switch the data through the second switch fabric upon determining that the data is being processed as Time Division Multiplexing (TDM) traffic, and

wherein the second line card includes physical connection circuitry, the physical connection circuitry to concatenate the packet data into a TDM signal upon determining that the packet data is transmitted to an in-ring network element, wherein the concatenation can be across any locations within the TDM signal and wherein a size of the concatenation can be in increments of single TDM frames.

13. (Previously Presented) A network element comprising:

a first line card having a number of first interfaces to receive data, the first line card

including:

a first physical connection circuitry coupled to the number of first interfaces;

a first ingress packet processing circuitry coupled to the first physical  
connection circuitry; and

a first egress packet processing circuitry coupled to the first physical  
connection circuitry and the first ingress packet processing circuitry;

a second line card having a number of second interfaces, the second line card

including:

a second physical connection circuitry coupled to the number of second  
interfaces;

a second ingress packet processing circuitry coupled to the second physical  
connection circuitry; and

a second egress packet processing circuitry coupled to the second physical  
connection circuitry and the second ingress packet processing circuitry;

a packet mesh coupling the first ingress packet processing circuitry to the second  
egress packet processing circuitry;

a control card including a Time Division Multiplexing (TDM) switching circuitry;

a TDM switch fabric coupling the TDM switching circuitry to the first physical  
connection circuitry and the second physical connection circuitry, the first  
physical connection circuitry to switch the data through [[a]] the packet mesh  
upon determining that the data is being processed as packets, the first physical  
connection circuitry to switch the data through the TDM switch fabric upon

determining that the data is being processed as Time Division Multiplexing (TDM) traffic.

14. (Previously Presented) The network element of claim 13, wherein configuration data received from the control card determines whether the first ingress packet processing circuitry or the second egress packet processing circuitry de-encapsulates a first number of protocol headers from the packets, the first number of protocol headers associated with one or more first protocols through which the packets are received and encapsulates the packets with a second number of protocol headers associated with one or more second protocols through which the packets are to be transmitted.

15. (Original) The network element of claim 14, wherein the first ingress packet processing circuitry and the second ingress packet processing circuitry is to de-encapsulate the first number of protocol headers and encapsulate the second number of protocol headers based a field within the first number of protocol headers and the second number of protocol headers.

16. (Original) The network element of claim 13, wherein the second physical connection circuitry is to concatenate the packets into a TDM signal upon determining that the packets is transmitted to an in-ring network element, wherein the concatenation can be across any locations within the TDM signal and wherein a size of the concatenation can be in increments of single TDM frames.

17. (Currently Amended) A machine-readable medium that provides instructions, which when executed by a machine, cause said machine to perform operations comprising:

receiving data from a number of interfaces via one or more first protocols;  
switching the data through a first switch fabric upon determining that the data is being  
processed as packet data to be transmitted via one or more second protocols,  
wherein switching the data through the first switch fabric includes:  
de-encapsulating a first number of protocol headers associated with the first  
protocols from the packet data; and  
encapsulating the packet data with a second number of protocol headers  
associated with the second protocols;  
switching the data through a second switch fabric different than the first switch fabric  
upon determining that the data is being processed as Time Division  
Multiplexing (TDM) traffic; and  
concatenating the packet data into a TDM signal, wherein the concatenation can be  
across any locations within the TDM signal and wherein a size of the  
concatenation can be in increments of single TDM frames.

18. (Original) The machine-readable medium of claim 17, wherein switching the data through the first switch fabric further comprises mapping TDM traffic into packet data.
19. (Canceled)
20. (Previously Presented) A machine-readable medium that provides instructions, which when executed by a machine, cause said machine to perform operations comprising:  
receiving data from a first Time Division Multiplexing (TDM) signal through a  
number of first interfaces;

switching the data through a packet mesh upon determining that the data is being processed as packets to be transmitted via one or more second protocols, wherein switching the data through the packet mesh includes: de-encapsulating a first number of protocol headers associated with the TDM signal from the packets; and encapsulating the packets with a second number of protocol headers associated with the second protocols;

switching the data through a TDM switch fabric different than the packet mesh upon determining that the data is being processed as Time Division Multiplexing (TDM) traffic; and

transmitting the packets and the TDM traffic into a second TDM signal through a number of second interfaces, wherein the transmitting includes concatenating the packets into the second TDM signal such that the concatenation can be across any location within the second TDM signal and wherein a size of the concatenation can be in increments of single TDM frames.

21. (Original) The machine-readable medium of claim 20, wherein the second TDM signal is transmitted to an in-ring network element.

22. (Original) The machine-readable medium of claim 20, wherein the packets are concatenated within locations in the second TDM signal not occupied by TDM traffic.